

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 194 (WOODSBORO PIKE) AND GLADE BOULEVARD IN FREDERICK COUNTY, MARYLAND. MD 194 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FIVE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 194 APPROACHES OPERATING CONCURRENTLY AND THE GLADE BOULEVARD APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING WILL BE PROVIDED FOR THE SOUTHBOUND MD 194 APPROACH.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE SOUTH LEG OF MD 194.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

WEST LEG - MD 194 (WOODSBORO PIKE) AND GLADE BOULEVARD

WAIT: "WAIT TO CROSS WOODSBORO AT GLADE. CROSSWALK ANGLES RIGHT" **

WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'
** MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-8 CAMERAS) AND INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.02-09 (FLAGGING OPERATION)

STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 624-8140/8141

MS. ANDREA ABEND
DISTRICT UTILITY ENGINEER
PHONE: (301) 624-8115/8116

MR. RAY JOHNSON
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 624-8105

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9016	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9044	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9086	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS
9571	2 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF: - 2 EACH R10-3(1) SIGN (9 IN. X 15 IN.) TO READ "PUSHBUTTON TO CROSS WOODSBORO PIKE"

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	
PHASE 2 + 5		R	R	G	G	G	R	R	R	DW	DW	
2 + 5 CHANGE		R	R	G	G	G	R	R	R	DW	DW	
PHASE 2 + 6		G	G	G	G	G	R	R	R	DW	DW	
2 + 6 CHANGE		Y	Y	Y	Y	Y	R	R	R	DW	DW	
PHASE 4 + 8		R	R	R	R	R	G	G	G	DW	DW	
4 + 8 CHANGE		R	R	R	R	R	Y	Y	Y	DW	DW	
PHASE 4 + 8 ALT		R	R	R	R	R	G	G	G	WK	WK	
PED CLEARANCE		R	R	R	R	R	G	G	G	FLDW	FLDW	
4 + 8 ALT CHANGE		R	R	R	R	R	Y	Y	Y	DW	DW	
FLASHING OPERATION		FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	DARK	DARK	

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
1002	200 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
2002	2 C.Y.	TEST PIT EXCAVATION
5002	130 L.F.	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6001	42 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	325 S.F.	5 INCH CONCRETE SIDEWALK
8001	22 EACH	12 INCH LED SIGNAL HEAD SECTION
8003	1 EACH	2 WIRE CENTRAL CONTROL UNIT
8007	3 EACH	8 INCH LED SIGNAL HEAD SECTION
8010	2 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8012	1 EACH	CONDUIT BEND IN EXISTING FOUNDATION - ANY SIZE
8013	1 EACH	EMBEDDED METERED SERVICE PEDESTAL
8014	2 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8016	1 EACH	REM & DISPOSE MAT & EQUIP PER ASSIGN
8025	310 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8027	970 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8028	32 S.F.	DETECTABLE WARNING SURFACES
8029	22 S.F.	RELOCATE EXISTING SIGN
8032	17 L.F.	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
8033	145 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8038	90 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG - THHN/THWN
8043	3 EACH	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
8044	8 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8045	2 S.F.	INSTALL GROUND MOUNTED SIGN
8047	2 EACH	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT.
8055	205 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	270 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	940 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8066	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT

WIRING DIAGRAM

WIRING KEY

- A
B
C
D
E
F
G
H
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
- 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- VIDEO CAMERA DETECTION LEAD-IN CABLE
- STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- MICROLOOP PROBE LEAD-IN

ML - MICROLOOP PROBE SET
PT - PROPOSED UNDERGROUND TELEPHONE SERVICE
PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE
+ - 3/4 IN. X 10 FT. GROUND ROD

TOD No: XX449-52
SHA No: FR631A53/B53
MD 194 @ Glade Boulevard

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 194 (Woodsboro Pike) and Glade Blvd.
Walkersville, Maryland

GENERAL INFORMATION SHEET

SCALE NONE DATE 4/9/2010 CONTRACT NO. XX44951B5

DESIGNED BY S. Bloss COUNTY Frederick
DRAWN BY S. Bloss LOGMILE 10019402.83
CHECKED BY N. Leary TIMS NO. K178
F.A.P. NO. TOD NO.

TS NO. 2064E DRAWING TSP-2 OF 3 SHEET NO. 3 OF 3

WR&A

WHITMAN, REQUARDT
& ASSOCIATES, LLP
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